

# STELIOS CHATZIMICHAIL

ONISILOS MSCA COFUND FELLOW



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Dr. Stelios Chatzimichail's research focuses on developing methods for AMR surveillance in reclaimed water with particular interests in bacterial vesicles, their genomic content and their capability to undergo horizontal gene transfer of antimicrobial resistance genes to otherwise sensitive recipients.

Dr. Stelios Chatzimichail received his first degree in Chemistry with Molecular Physics from Imperial College London in 2015, graduating with First Class Honors and receiving the Departmental Prize for Outstanding Overall Performance. He completed his PhD in the same institution in 2020, where he developed microfluidic platforms to capture and study Circulating Tumour Cells using single-cell proteomics. Following his PhD, he worked as a Postdoctoral Researcher at Imperial College London, where he developed hand portable high-performance liquid chromatography (HPLC) systems equipped with spectral detection for on-the-field detection of polycyclic aromatic hydrocarbons in freshwater samples. From 2021 to 2024, Stelios worked as a Postdoctoral Researcher in the group of Achillefs Kapanidis (Department of Physics, University of Oxford) as part of the Antimicrobial Resistance (AMR) Testing consortium funded by the Oxford Martin School. There, he led the development of a microfluidic diagnostic platform capable of rapid identification of bacterial pathogens in under one hour using molecular barcoding and advanced imaging techniques. Currently, Stelios is an Onisilos-MSCA CoFUND Fellow in Nireas-IWRC and his research focuses on developing methods for AMR surveillance in reclaimed water with particular interests in bacterial vesicles, their genomic content and their capability to undergo horizontal gene transfer of antimicrobial resistance genes to otherwise sensitive recipients.